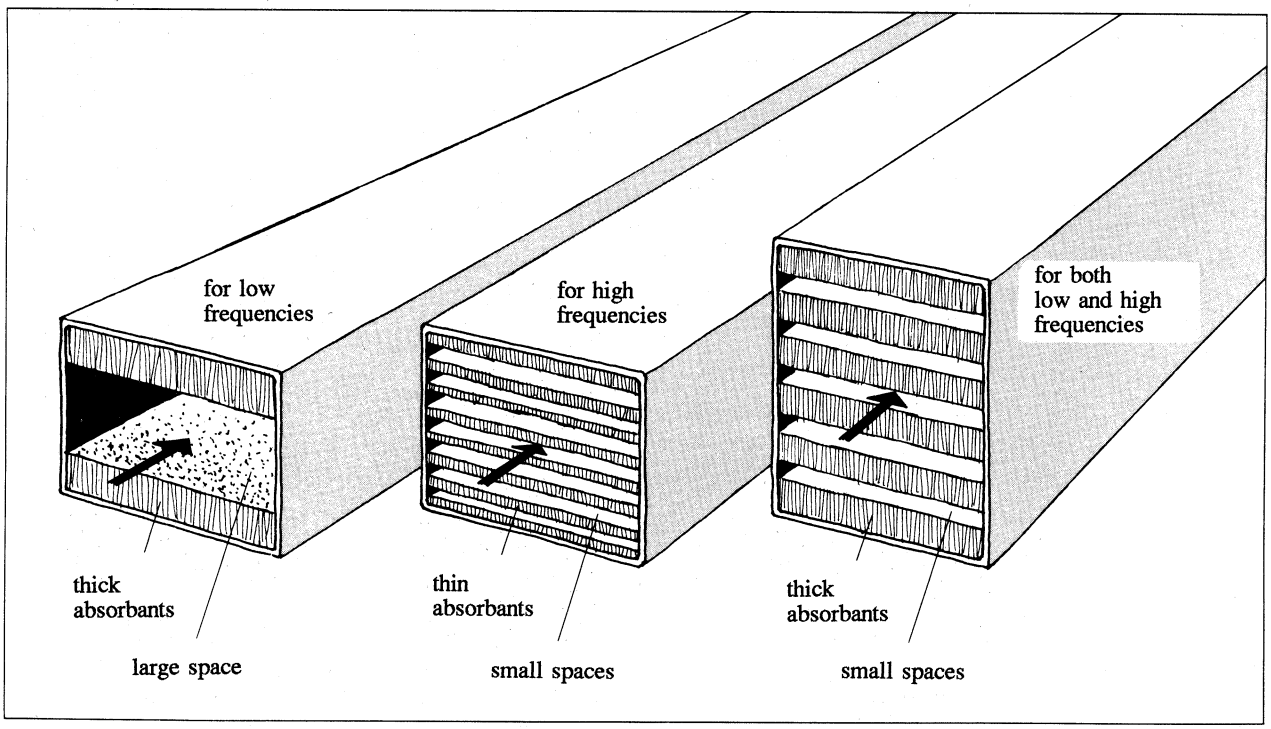
DISSIPATIVE MUFFLERS ARE EFFECTIVE OVER A BROAD RANGE OF FREQUENCIES

The simplest form of a dissipative muffler is a duct with sound–absorptive material on the walls. The thicker the material, the lower the frequency that can be absorbed. For higher frequencies, the space between the absorbing walls must be made smaller. A large duct must therefore be subdivided into many smaller ones.

Principle



Application to a gas turbine power station

Example

A common form of back–up power station is one driven by a jet aircraft enbine. Noise reductions up to 70 dB are frequencly required. If noise in a very wide frequency range is to be reduced, it is generally necessary to employ dissipative mufflers with thick and thin baffles of perforated sheet metal filled with mineral wool.